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*Seventeen Years in Operation
in New York City*

NOW OCCUPYING ENTIRE FLOOR
OF HERALD SQUARE BUILDING

SPRAGUE METHOD
of applying

Superheated Dry Air

IN THE TREATMENT OF
RHEUMATISM GOUT, SCIATICA,
LUMBAGO, NEURITIS

and all conditions arising from imperfect elimination of the morbid products of the body, as well as for stiffness from accidents or following splint or plaster cast treatment.



"The First Ease in Many Weeks."

The Sprague Institute

141-43-45 WEST 36th STREET

Just off Broadway NEW YORK

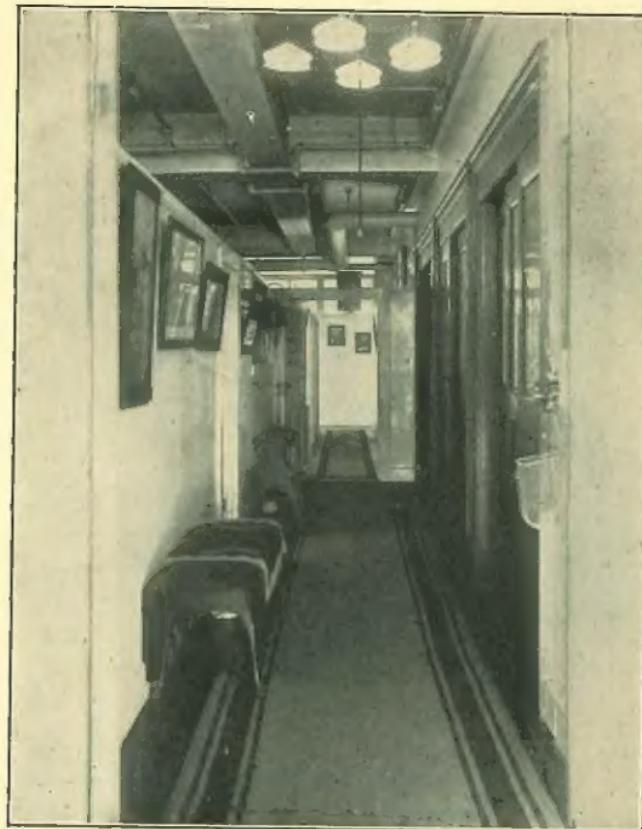
Telephone, Greeley 1135

601/16



R. SHADWELL, in undertaking the Supervision of "Authoritative Reports" on Superheated Dry Air Therapy in Gout, Rheumatism, Arthritis, Sprains, Sciatica, Eczema, etc. (a notable English work published in 1898), says:

"When requested to supervise the preparation of this volume I readily consented for three reasons. In the first place **experience has convinced me of the value of the treatment**; in the second place, I think it ought to be better known than it is; and, in the third, I have no personal interest in it whatever. **I originally approached the invention with the scepticism which becomes second nature to medical men, but having tested it on my own person I found that it did what it pretended to do.** And then I saw a boy with a knee-joint full of fluid and wincing at every movement gradually charmed off within half an hour into a smiling and painless indifference which permitted the free handling and flexion of the limb without a murmur. **Since then I have seen the results produced in old and hopeless cases of rheumatic Arthritis which I could not have believed on lesser evidence than my own eyesight.** The facts related in this volume amply corroborate my experience and make it unnecessary for me to say more on that head. Attested as they are by independent observers of high standing in the profession, they form a body of evidence no one can affect to ignore or despise. They do not come from a few clinics, but from a large number of first rate hospitals. Not only in England, but in Paris, Canada, and the United States. It is impossible to deny the weight of so large a mass of concurrent testimony."



Treatment rooms are arranged to afford the utmost convenience.

THE SPRAGUE

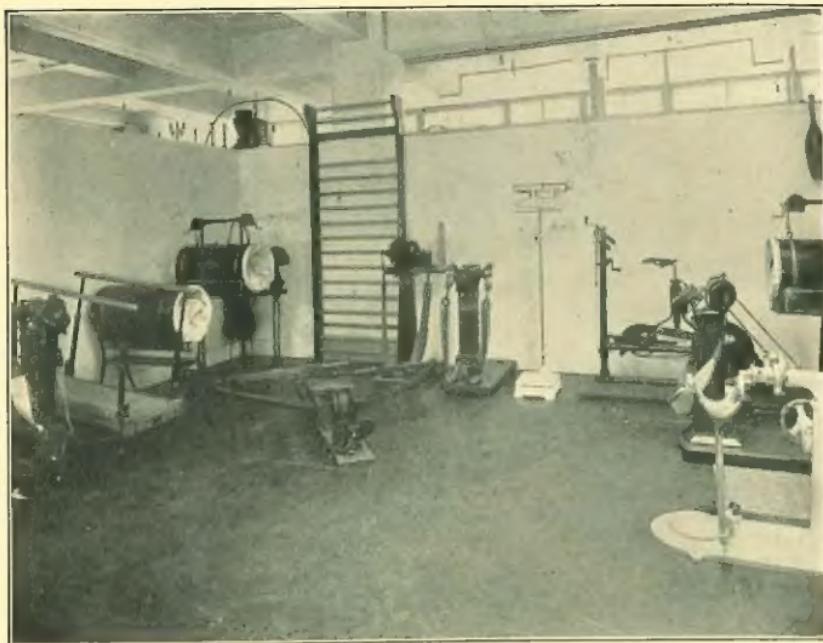
Superheated Dry Air Treatment

Among Diseases most favorably influenced and cured by Dry Hot Air and when indicated combined with Massage and other intelligent forms of handling are Acute and Chronic Gout Rheumatic Gout

THE test of any treatment lies in the results that it produces when actually tried. With a test of many thousand cases since the **Sprague Method** was introduced at this Institute, we feel a certainty and assurance as to what our treatment will do.

It is because of the splendid results under our supervision, and the success the treatment has achieved in other parts of this country and abroad that makes us especially anxious to acquaint you with the **Sprague Institute**, and if possible induce you to inspect it, which will better enable you to judge of our special apparatus, general equipment and manner of using these facilities in the care and comfort of patients during treatment.

Our long and successful experience with this treatment warrants our saying that in cases which are suited to our treatment (as indicated in margin), we can be of the utmost service to a large number of patients whose cases have proven refractory and unyielding to the usual remedies. And we can render this service in a manner commensurate with a patronage of the very best character.



One corner in the Arthromotor room.

Rheumatism

Arthritis

Deformans

Arthritis

Traumatic

Neuropathic
or following

Infectious

Fevers

Chronic

Articular

Rheumatism

Improved Method

The treatment is an improved method of applying **Dry Hot Air** by especially designed, patented apparatus, which keeps the air absolutely dry and at any desired temperature up to 400 degrees F. (See cross-section of local apparatus page 5.)

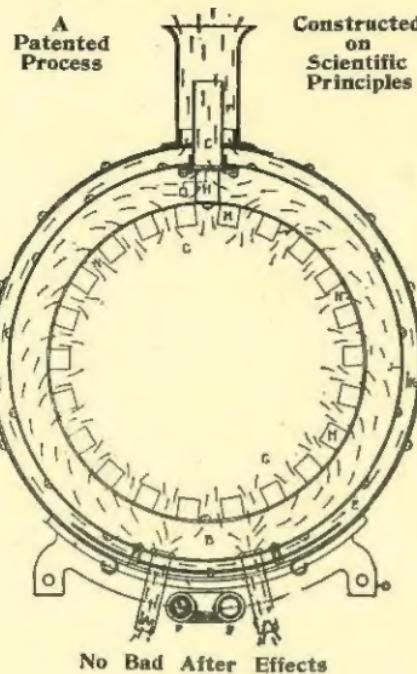
This Treatment a Specialty

We make the **Superheated Dry Air** treatment a specialty, hence we are able to give it all the time and attention required for thoroughness and efficiency in every particular, which cannot be done by the busy physician at his office; and which requires more time than the visiting staff of the ordinary hospital can be expected to devote to it.

We confine our efforts to our own special treatments. No medicines are administered. If the patient's physician finds medicine necessary he will also find a very much smaller quantity to be sufficient, for the reason that circulation, absorption and assimilation are so materially increased by the treatment.



Sprague body apparatus (open) showing details of complete equipment.



- AA. Air intakes.
- B. Circulating air space.
- C. Outlet for circulation.
- D. Baffle plate over burners.
- E. Jacketed space for products of combustion.
- F. Smoke-stack.
- G. Treatment chamber.
- H. Outlet from treatment chamber.
- I. Inner cylinder of brass.
- J. Intermediate cylinder of steel.
- K. Asbestos lining of outer jacket.
- L. Outer jacket—nickel plated.
- M. Cork ribs.
- N. Perforations admitting heated air.
- O. Base holding apparatus.
- PP. Gas burners.

CROSS-SECTION LOCAL APPARATUS

Showing construction which makes the production of absolutely **Dry Hot Air** possible.

In construction and Therapeutic effects the Sprague Apparatus is not to be confounded with the wooden box or the stove pipe with a lamp for a heater of years ago or the common sheet iron affair of the present which has no process of drying the heated air and which admits the air with the oxygen burned out of it, accompanied by the products of combustion into the treatment chamber.

The Sprague Apparatus is a scientific, patented appliance for producing **COMPLETELY DRIED HOT AIR** with all the oxygen left in it, for therapeutic application to the whole or any part of the body for such ailments as herein enumerated. See Marginal list.

In the Sprague Apparatus, constructed for either local or general treatment, absolutely dry air at a temperature ranging from 250° to 400° F. may be safely and comfortably employed; and the percentage of cures is greater than can be claimed for any other treatment in similar cases.



Prompt ease from pain often allows the patient to enjoy a restful nap during his treatment.

**Infectious
Rheumatism**

Benefits of Massage and Other Forms of Intelligent Manipulation and Exercise Combined with Dry Hot Air

Sciatica

In connection with the **Dry Hot Air** treatment, skillful massage and other forms of intelligent manipulation and exercise are administered, when indicated, which enables us to secure ends by the combination which could not be reached by either alone. With the increased activity of all the circulatory processes and with the softening and relaxing of the contracted and congested tissues, it is obvious that we can loosen up and set moving exudates and toxins which are at the root of such diseases as are noted here.

**Fixed Joints
if Fibrous**

Clean and Unoffensive Treatment

**Stiffness
following
splint
and cast
treatment
of Fractures
and
Dislocations**

We wish also to place especial emphasis on the fact that this is a perfectly comfortable and pleasant treatment, clean and unoffensive, and that it is effective in acute cases as well as in cases of long standing and where all the common or the usual remedies have failed.

**Malnutrition
Obesity**

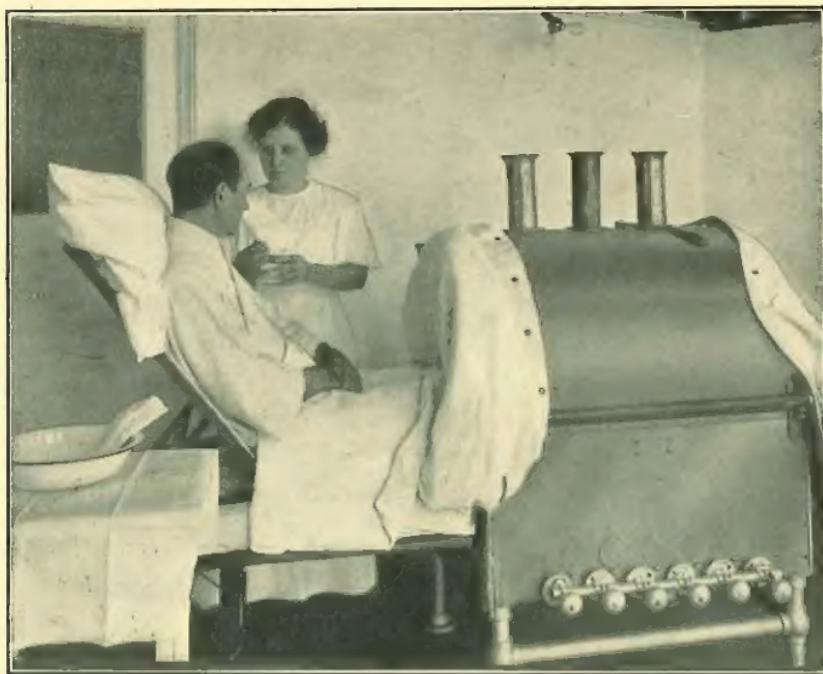
Difficult Cases from Eminent Physicians

**Lumbago
and other
Myalgia**

Many of our most difficult cases have been patients who were sent to us by eminent physicians of this and surrounding cities, and it gives us pleasure to solicit a continuance of this co-operation. Some of the best known physicians themselves have taken the **Sprague Treatment**, with most satisfactory results.



Treatment of entire body. In absolute comfort.



A comfortable treatment of both lower extremities. The wants of the patients undergoing treatment are anticipated.

Acute and
Chronic
Nephritis

Writer's
Cramp
Golf Leg
Puffy,
Watery
Swollen
Limbs

Tennis
and
Baseball
Arm
Neuritis
Neuralgia
Toxemia
Neurasthenia

Labored
Heart

Improved Apparatus Extended the Usefulness of Dry Hot Air

In one form or another, heat has been employed in the treatment of disease from the earliest times and in every part of the world, but its use in the service of medicine and surgery has never been so general as at the present time. With a fuller understanding of the physiological laws upon which the treatment is based, and with the great mechanical improvement in the **Apparatus**, a great many eminent authorities abroad, as well as some of the best talent in our own country, now regard it one of the most useful means at our disposal for the cure and alleviation of a large class of ailments. It is also one of the safest, for no matter if the treatment be extended over weeks or months, it never produces the constitutional disturbances which are so apt to occur when powerful drugs are given.

Dry Hot Air as produced and applied by the Sprague Apparatus is mildly stimulating to the whole system, and is a positive and immediate relief to labored heart action. The weakest heart is not unfavorably affected by it, while in nearly every case it receives great relief. We are aware that an erroneous notion on this point exists among many, even among physicians, but we make this statement with an experience of many thousand cases, and do not wish to have its effects confounded with other forms of using heat from which the moisture is *not* extracted and when the heated air is *breathed* by the patient.

This error originates with those who have gained their knowledge of the effects of heat on the system from Turkish and the various vapor and hot water baths, and it would be surprising if it were not erroneous.

The therapeutic action of heat so produced is as different from the effects of well-circulated, perfectly **Dry Heat** as any two effects can well be.

Action if
Functional

Low Temperature of Other Methods

Abnormal

Blood

Pressure

Sprains and

Strains

Cold and

Sweating

Feet

Acute or

Chronic

Synovitis

Ankylosis

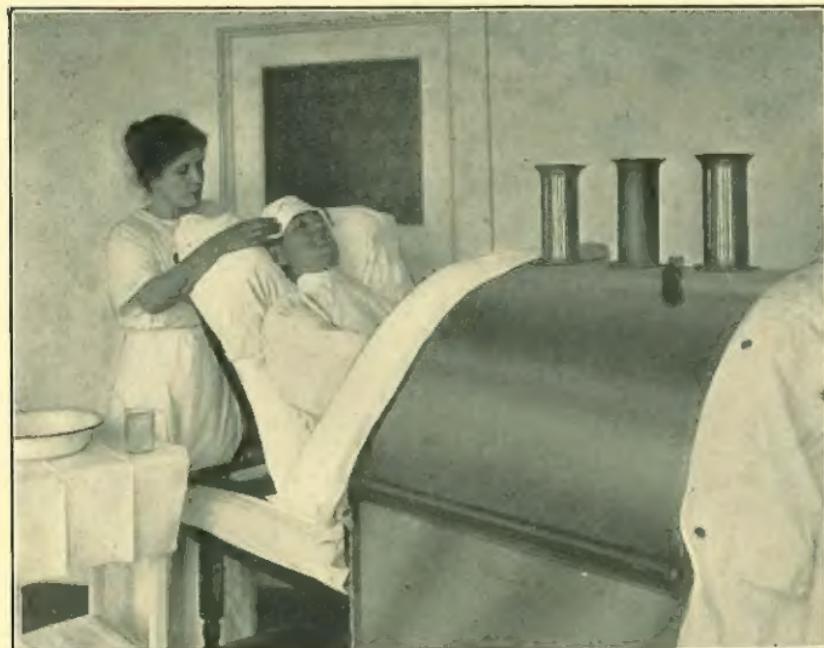
if

Fibrous

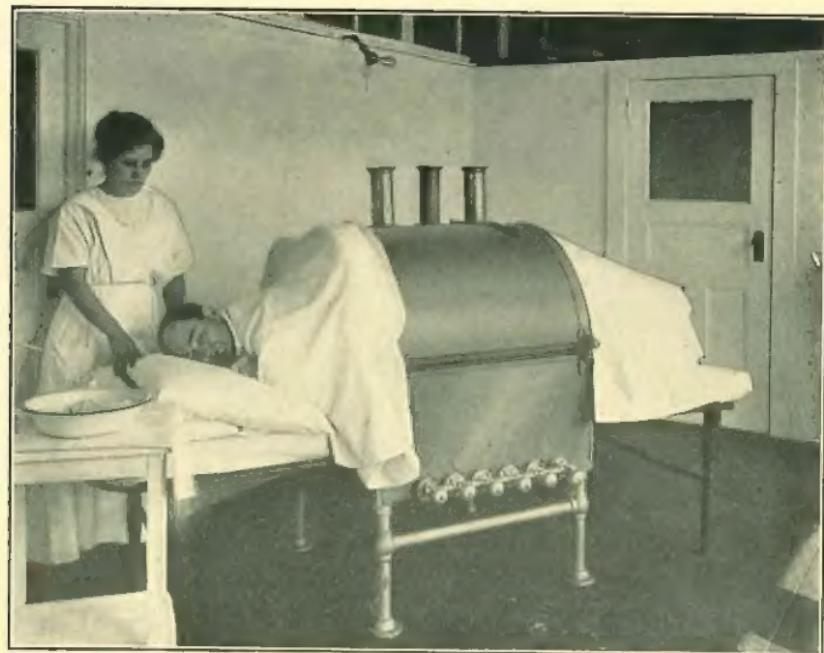
Dry Hot Air is in no sense a depressant.

The efficacy of moist heat is limited by the comparatively low temperature which patients can take; hot water becomes painful at 110 degrees F., and vapor cannot well be borne above 120 degrees F. Dry heat has greater value than moist heat as a remedial agent because it can be used, and comfortably, at many times these temperatures. This was well known in ancient times, for in the public and private baths of the Greeks and Romans there was one chamber, the **Calidarium**, where Hot, comparatively Dry Air was employed to combat disease. But here as in our modern Turkish baths the same limitations are met, for the patient being compelled to breathe the heated air, the employment of a very high temperature is contraindicated. Besides the air which is robbed of its oxygen by being breathed many times contains the pollution and fumes of every diseased body which may be admitted. The efficacy of heat is, within certain limits, proportionate to the comfort, intensity, and the length of time it is applied.

In the Sprague method of treatment by **DRY HOT AIR** the head is always out of the heated air, the air breathed is normal and pure. The Dry Air in the treatment chamber is always circulating and the heat is always under complete control, so that comfort and safety are absolute.



Each treatment is applied systematically with a skilled attendant supplying every need.



Entire body undergoing treatment. Specially direct to left inter-costal, hip and outer leg of left side.

THE SPRAGUE Superheated Dry Air Treatment

AS WAS said before, the test of any treatment lies in the results that it produces when actually tried. To give a fair idea of the time needed and the results obtained, we append a few cases taken at random as supplied by the patient's own physician. These are only a few of the many cases.

Case I.—Woman, aet. 52, **Chronic Articular Rheumatism**, duration twenty-two years. Locomotion difficult for twenty years. Twenty-one treatments were given during a period of three weeks, at the end of which she could walk and obtained painless use and control of all voluntary muscles.



Much depends upon the details of adjustment.



Superheated dry air treatment to arm and shoulder for brachial neuritis. Each case requires careful adjustment to meet individual conditions.

Case II.—Woman, aet. 50, had **Stiff Wrist**, exuberant callosus and fibrous adhesions (radius and ulna) as a result of an old Colles' fracture. Four treatments in an arm machine at 340 degrees F. completely restored motions of wrist.

Case III.—Woman, aet. 60, **Neuralgia and Chronic Intestinal Nephritis**, and inversion of both feet in consequence of severe burning sensation of the soles of the feet. Ten treatments relieved painful affection of the feet and she was able to walk normally.

Case IV.—Aet. 39, **Sciatica**, two months' duration. Completely cured in ten treatments.

Case V.—Woman, aet. 52, **Rheumatic Gout**, duration eight years; helpless for five years. Treatments daily for two months, after which she was able to walk without pain.

Case VI.—Woman, aet. 38, **Gout**, duration three years. Stiffness and tophi in small joints. Complete loss of power in the quadriceps extensor of the left thigh after the leg was brought to a right angle; muscles of the thigh very much atrophied. Passive motion of the knee-joint good. After four weeks of treatment the patient was able to partially extend her legs and walk a few rods without the aid of her cane. Chronic Gout is much more resistant to treatment than rheumatism, but yields in time.



Backache promptly succumbs to dry, hot air



In rheumatism or old injuries involving the shoulder and arm or hand, superheated dry air is remarkably effective.

Case VII.—Mrs. J. B., widow, aged 38. Diagnosis, **Arthritis Deformans**, duration about twenty-five years, including an attack of rheumatic synovitis of the knee in her thirteenth year, though the disease did not really begin until five years later, one year after her marriage. Helpless eight years.

Patient fairly well nourished; heart and lungs normal; digestion good; bowels irregular. Partial ankylosis of both shoulders, dorsal and cervical vertebrae. Complete ankylosis of the elbow, wrist, hips and knee-joints.

The fingers of both hands displaced towards the ulnar side of the hand and quite immovable. The legs were flexed upon the thighs and the forearms on the arms.

Treatment.—The lower limbs were straightened under anaesthesia, and the patient subjected to daily hot air treat-



An attendant directs every step of the treatment.

ment for two months; sometimes the whole body, and at others only the limbs being put into the apparatus. A sedative was given at night.

Results.—Great improvement in the movements of all the limbs. Patient able to turn her head, flex her fingers, legs, elbows and hips. Can walk a few steps without crutches, put her eye-glasses on, and can do many other things that were impossible when first seen. The haemoglobinometer showed 67 per cent. haemoglobin at the end of this time, so treatment has been discontinued for a time.

Case VIII.—Woman, aet. 23, **Subacute Articular Rheumatism**, of one month's duration. Stiffness and crepitation in both knees and one wrist. Ten treatments effected complete cure.

Case IX.—Woman, aet. 22, **Posterior Dislocation of Radius and Ulna**, with fracture of inner condyle of humerus. Fibrous ankylosis on inner side of humerus. Treatment: Anæsthesia, adhesions broken, resetting. Hot air treatment daily for six weeks. Result: absorption of callous and moderate motion of elbow regained.

Case X.—Woman, aet. 32, **Acute Pleuritis** of ten hours' duration. One treatment completely relieved patient and caused disappearance of friction sounds.

Case XI.—Woman, aet. 38, **Fibrous Ankylosis** of knee from an old pyæmic joint. Duration one year.

Examination.—Right knee 15½ inches in circumference, 3½ inches from the table with the patient on her back and limb as straight as possible. Patella absolutely fixed and very difficult to outline. Very slight movement of the joint. The adhesion had been broken down six times without much permanent good, and resulting in terrible inflammatory reaction.

Treatment.—After four applications of hot air the adhesions were broken down under anæsthesia, and as soon as the patient came out of the ether her leg was placed in the hot air machine and subjected to 312 degrees F. for one hour. The pain was almost immediately relieved. Later the leg was placed in a splint to keep it straight, and when examined the next morning there was positively no inflammatory reaction. In ten days the patient walked out of the Institute with the aid of a crutch, and has continued to improve since.

Case XII.—Male, married, aged 46 years. **Lithaemia**, duration about two years.

Examination.—Uric acid found in the blood and urine. No lesion of the joints; extremely nervous; neuralgic pains all over the body and limbs.

Treatment.—Daily hot air baths for two weeks, then three times a week for four weeks. No uric acid in the blood at the last examination. Restoration complete.

Case XIII.—Male, married, aged 43 years, **Neuritis**, pain up the back of the neck and over the head, as far as the Vertex, and attended by extreme sensitiveness of the great occipital nerve to pressure, by tingling and numbness, and by difficulty in movement of the head because of pain produced by motion. Daily hot air treatment for one week, three times a week for two weeks, condition cleared up completely.

Case XIV.—Woman, Mrs. T., widow, aged 40 years, **Neuritis**, pain very intense in neck above the Clavicle, over the shoulders, and in the Axilla, and down the arm even to forearm and fingers. Paralysis affecting the deltoid, biceps and supinator muscles. Twenty treatments. Restoration complete.

A lengthy article in the New York Medical Journal on "Dry Hot Air as a Therapeutic Agent," thus sums up the advantages of this form of treatment. (1) Dry heat is a valuable pain reliever, without any of the depressant effects common to drugs. (2) In connection with constitutional and medicinal treatment, we have in it a positive curative agent. (3) It is a stimulant to rapid repair and absorption. (4) It is one of the most valuable eliminative agents we possess. (5) When indicated it possesses sedative action on the nervous system obtained by no other means.

In the following illustration you will see that we recognize the human factor, in a great deal of the remedial work, and therefore have skilled operators whose training and long experience, in this work, helps to secure results, not otherwise attainable.

That the well-trained, skillful human hands can detect conditions, gage forces, and apply influences that cannot be done so well in any other way, will go, I think, without any serious contradiction.



A stiff or wry neck requires expert handling.



Pressure produces a definite result if applied at the proper point and enables us to locate the kink definitely.



A thorough relaxation of the great spinal muscles often produces most satisfactory results.



Many cases of constipation with weak and flaccid abdominal muscles are greatly benefited by systematic massage. Vicera lifting.



The manipulation of special areas often brings required results.



Female patients are placed in care of expert women operators.



Treating rheumatic hand and fingers while softened and relaxed and less sensitive because of the superheated dry air application.



The expert operator must know not only what to do but how to do it.
Page Fifteen



OREMOST among all the newer modifications of apparatus which aim to supply an increased dosage of rays which contribute to the production of tonic and natural warmth for physiological effects, the system known as the "Dowsing Radiant Heat and Light Treatment" stands first. Special globes, special filaments, and special designs of instrument—all to produce "Warm Sunshine."

A noted Berlin physician says of this instrument and its use: "Those of you who have seen and examined this apparatus must confess that it produces a very splendid radiation of dry, luminous heat, with advantages which no other heat producer possesses. It develops a heat of 250 F. to 300 F. in a few minutes. The heat, as heat, does not burn in the ordinary way; you feel it as warmth, but it does not sting and burn."

"Since introducing this apparatus in my house, I have treated and am now treating, patients with all kinds of ailments, from incipient colds to complicated and very obstinate sufferings. The patient will tell you he enjoys the soft, luminous rays like basking in the sun."



Whole body dowsing apparatus with patient. This system of heat and light therapy in use in this country only at the Sprague Institute.



Dowsing local apparatus. A special apparatus designed to direct a soothing stream of superheated air directly into the ear. A valuable and effective treatment in chronic, inflammatory affections of the outer and middle ear. Perfectly comfortable.



In cases of deafness due to sclerosis, superheated dry air applied in this way stimulates the local circulation, absorption improves the nutrition and hence produces a remarkable improvement in the hearing.



Concentration of special light rays on definite areas produce well-defined results. In contractions and adhesions as well as in pain the effects are excellent.

The Arthromotor

IT IS OUR purpose to bring to the attention of the profession what further improvements and additions we have been able to make for the more perfect handling of that large class of cases that we have found comes within the scope of the work of the Sprague Institute.

The Arthromotor—the invention of that famous Swiss surgeon, Dr. Charles Scholder, which we have had in use for more than four years, has proven so satisfactory, and the uses for it have increased so rapidly, that a second Arthromotor has been added to our equipment, and **these are the only instruments of their kind in the United States.**

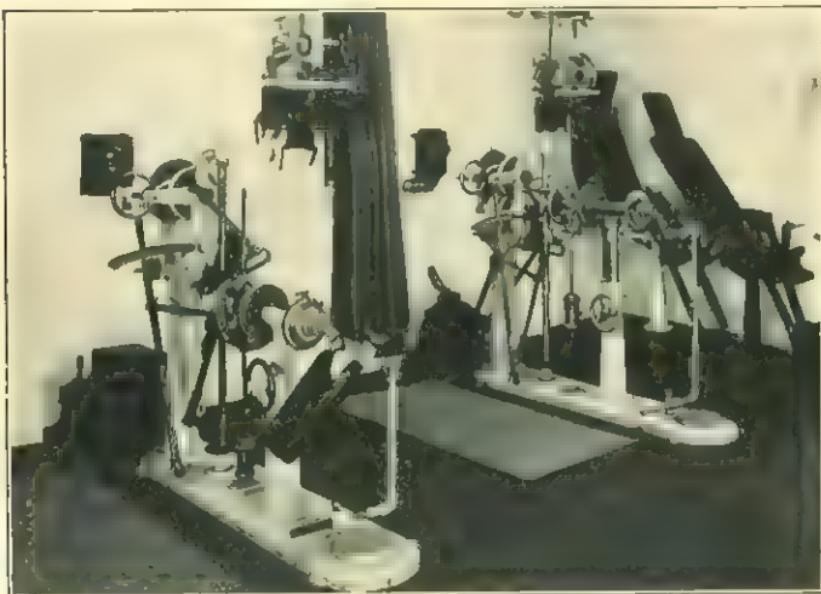
Our first Arthromotor was tested out so thoroughly, on such a liberal scale, and under the observation of such a large number of reputable physicians in one of our best known New York hospitals, that there is a broad and tangible base of experience from which to speak to those who have no knowledge of this wonderfully efficient instrument. Nearly 500 cases were treated and a report on all these cases are on file in our office.

Can you think of a more thorough preparation for the work of the Arthromotor than that described in the previous pages of this booklet? Not only the **Dowsing System of Radiant Heat and Light**, which has proven its merits as an efficient aid in a great many of these cases, is in use here in its entirety, but also the **Sprague Super-heated Dry Air Method**, which doubtless has more to be said in its favor as a scientific system of heat therapy than any system yet devised.

You will allow us to call particular attention to a few of the many uses of this wonderful machine—the Arthromotor—in the following cuts.



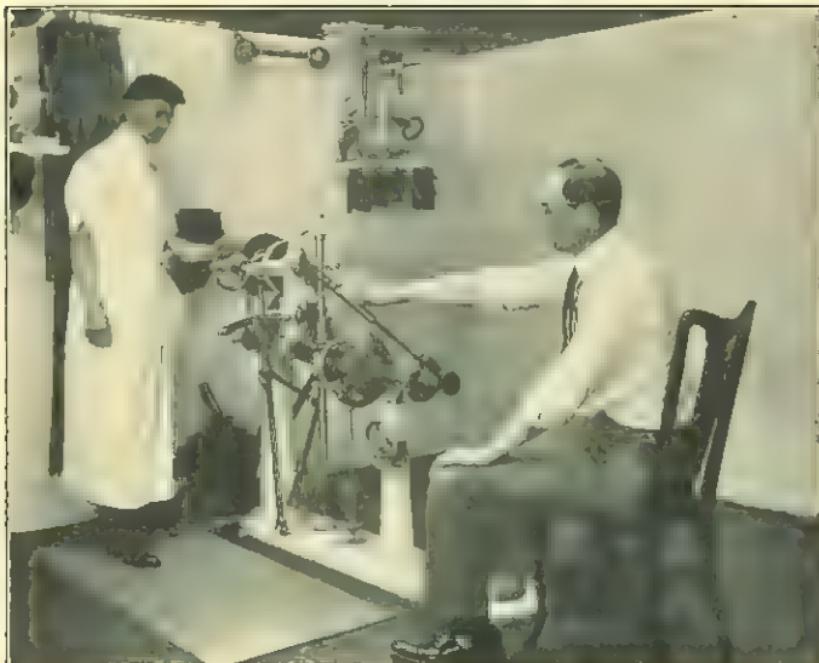
For every physical deformity or derangement there is some unique device or machine designed to aid in its anatomical correction.



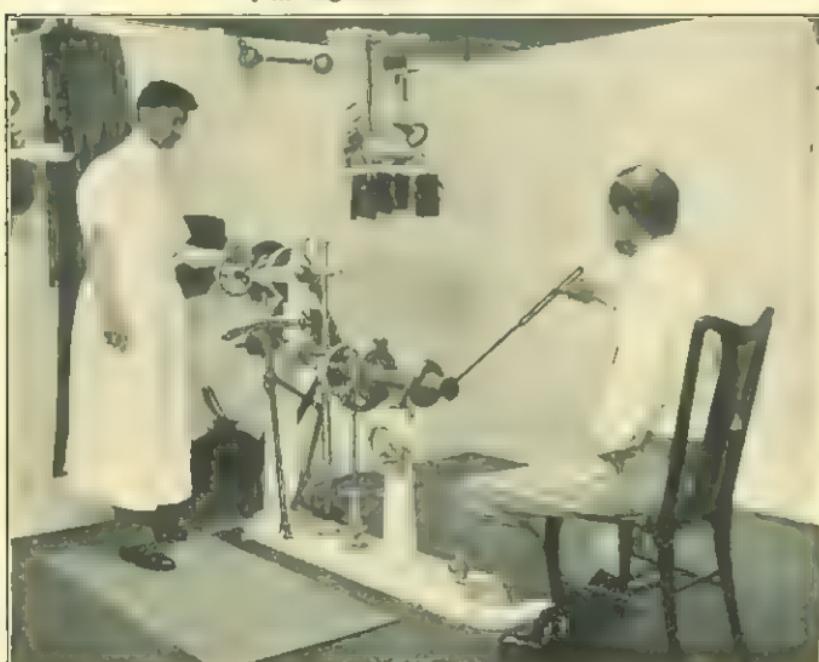
Two machines displayed with different attachment.



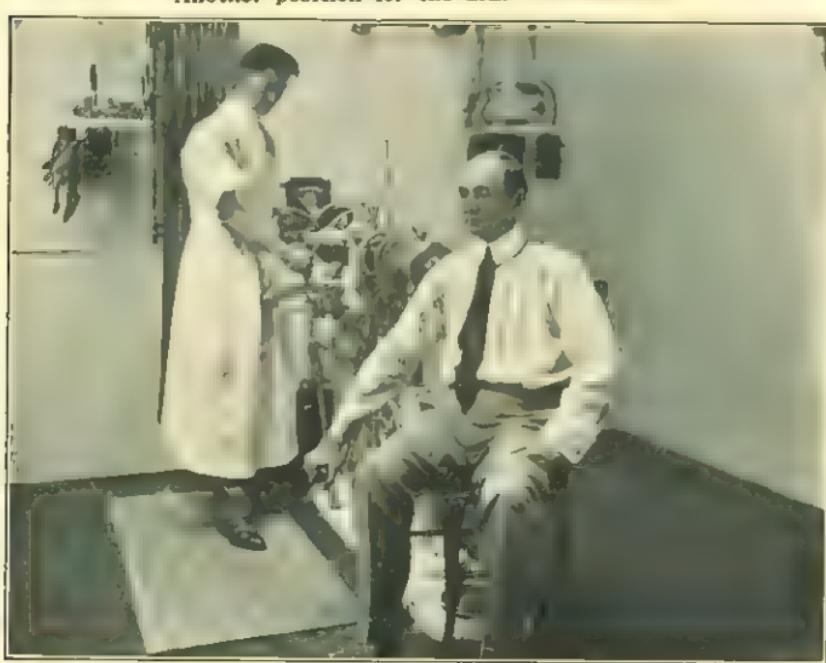
Another view of the Arthromotor with elbow attachment.
Page Nineteen



Various positions in the restoration of abnormal shoulder involving joint ligaments and muscles.



Another position for the arm and shoulder.



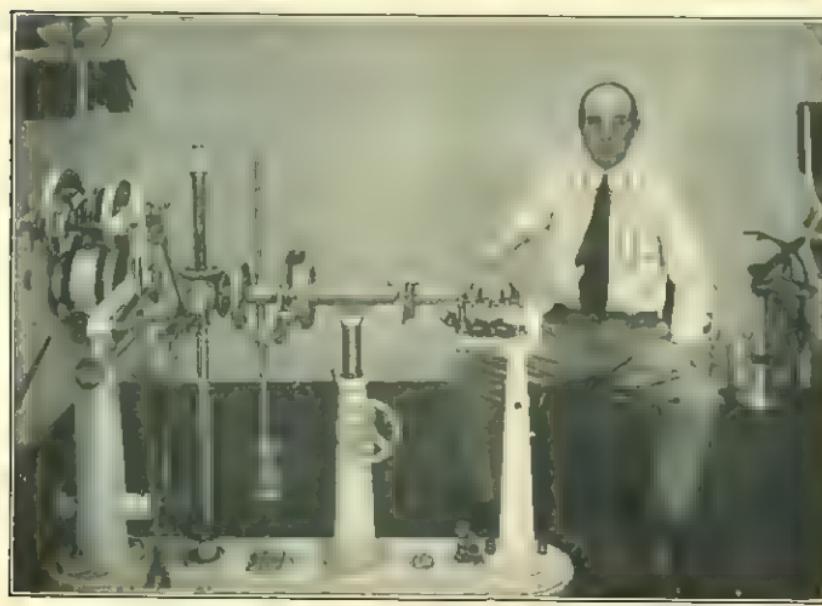
And another.



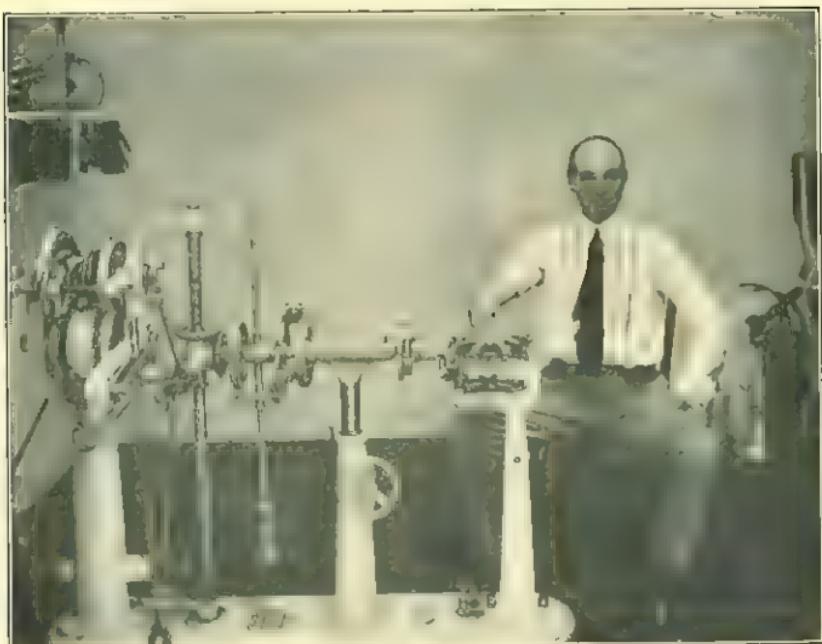
Further treatment for the arm and shoulder.



Another in extreme upward extension.



The arthromotor adjusted for treating the hand and fingers.



Same as the preceding but with the fingers widely spread and special muscles and ligaments put on a gradual stretch.



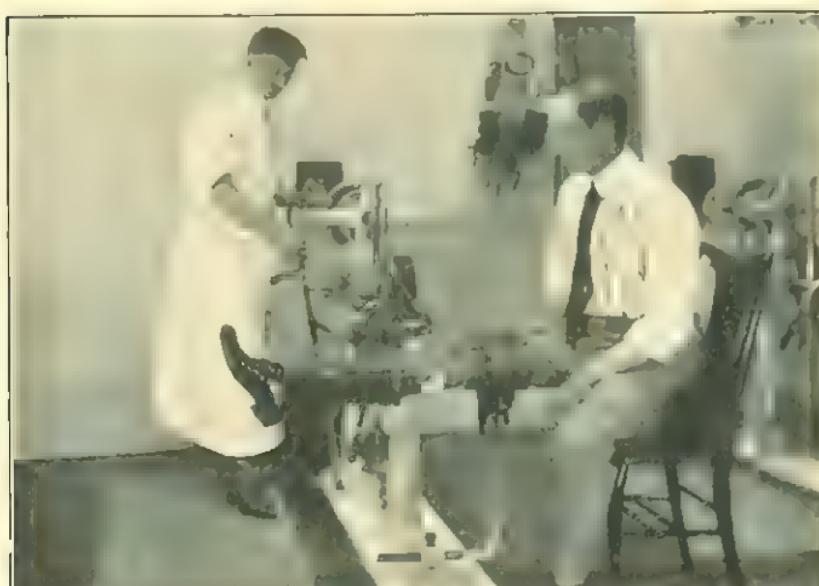
The arthromotor adjusted to provide the movements necessary to overcome a stiff elbow. In beginning the treatment the elbow was extended and could not be flexed.



Considerable gains had been made in flexion.



Elbow restored to complete and normal action.



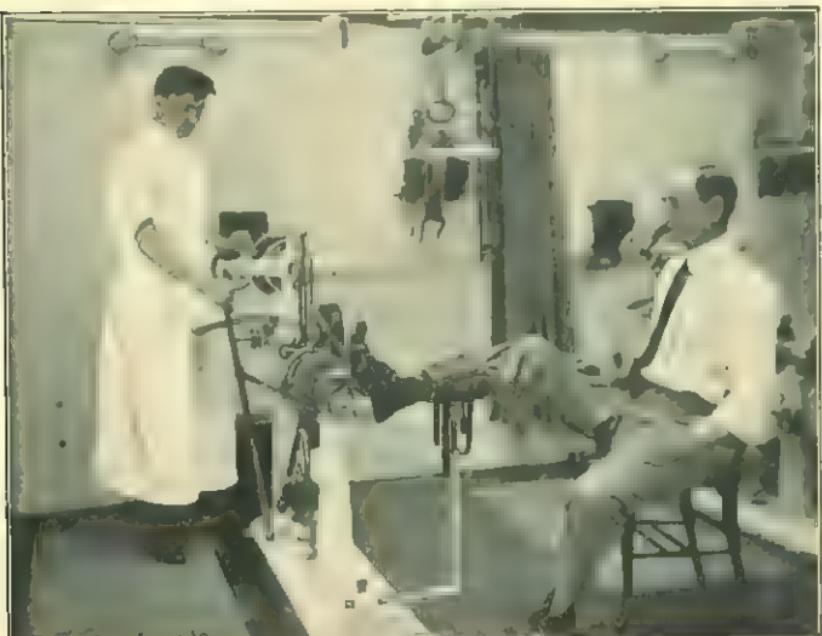
Stiff knee in position to begin gentle movements.



When some gain in normal motion is made.



Motion now free and complete.



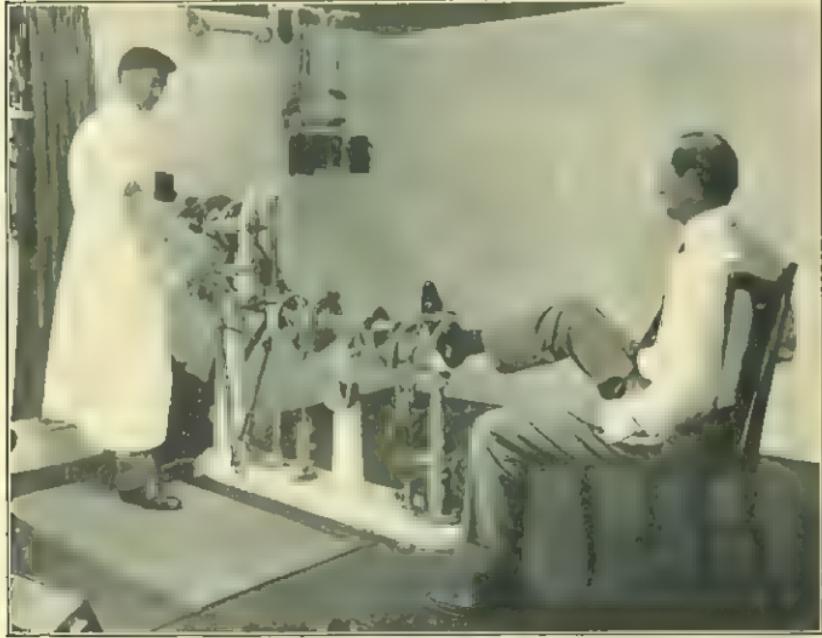
Foot carefully adjusted for extension, and flexion or to any degree, alternating the movements.



In extension. This figure in conjunction with the following.



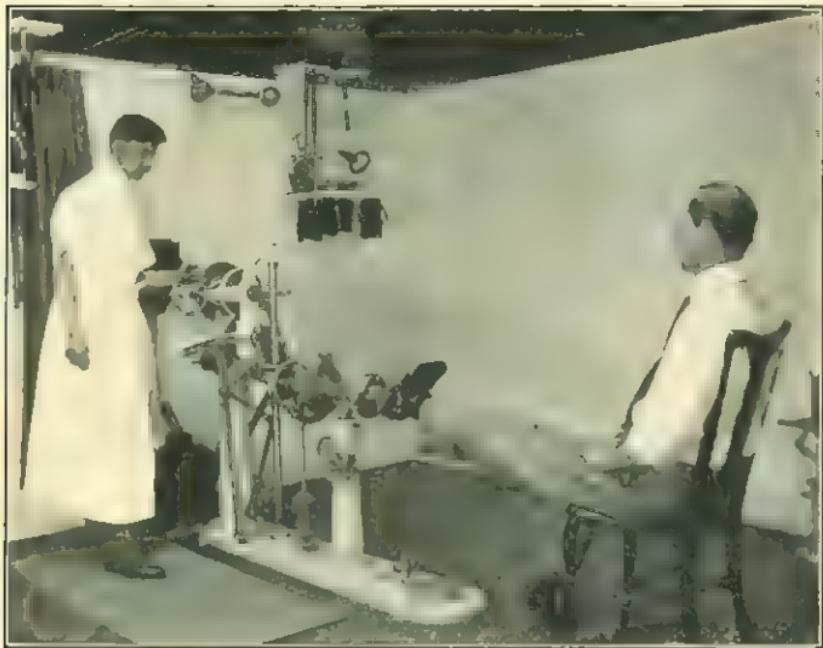
Extreme flexion. With the foot in this position carefully adjusted movements are given that increase the circulation, develop special muscles and restore the strength and mobility of the joint.



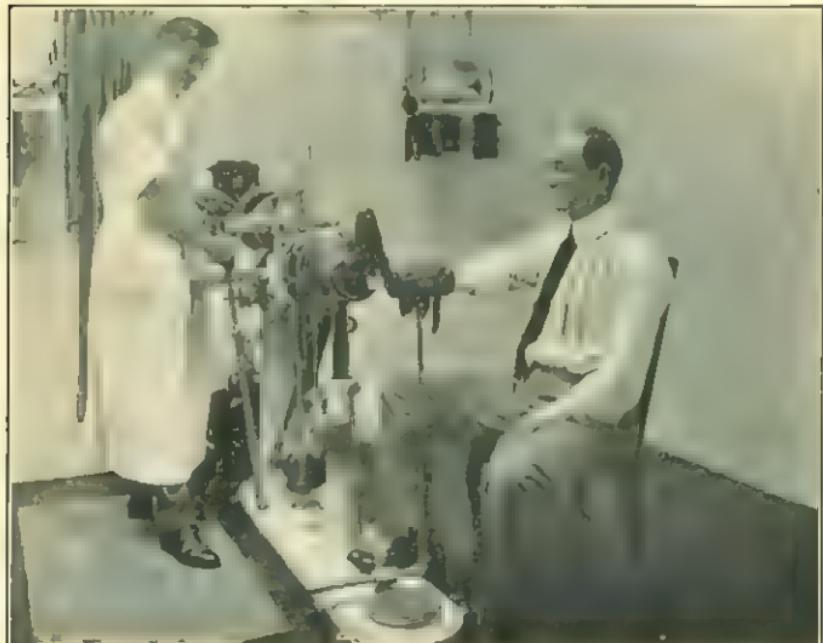
No attachment is more capable of breaking up old adhesions, stretching shortened muscles and ligaments than this attachment which has foot in position for rotating ankle joint.



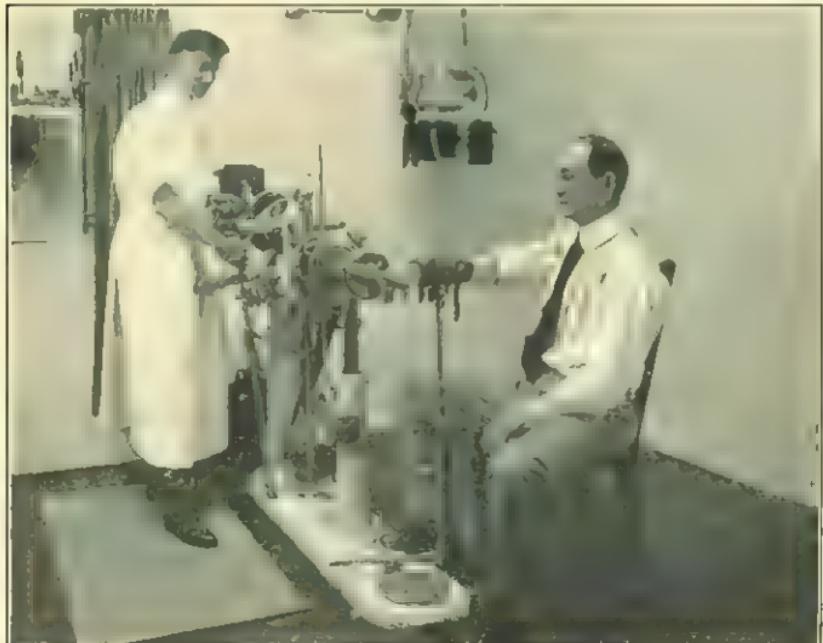
Attachment and position for rotation of hip joint. Extreme abduction with its opposite, the following position and all gradations produce excellent results.



Same as the foregoing, but with the foot far abducted and the whole limb rotated inward. This serves to bring special muscles and ligaments in and around the hip joint, and heavy groups of muscles in upper leg under treatment.



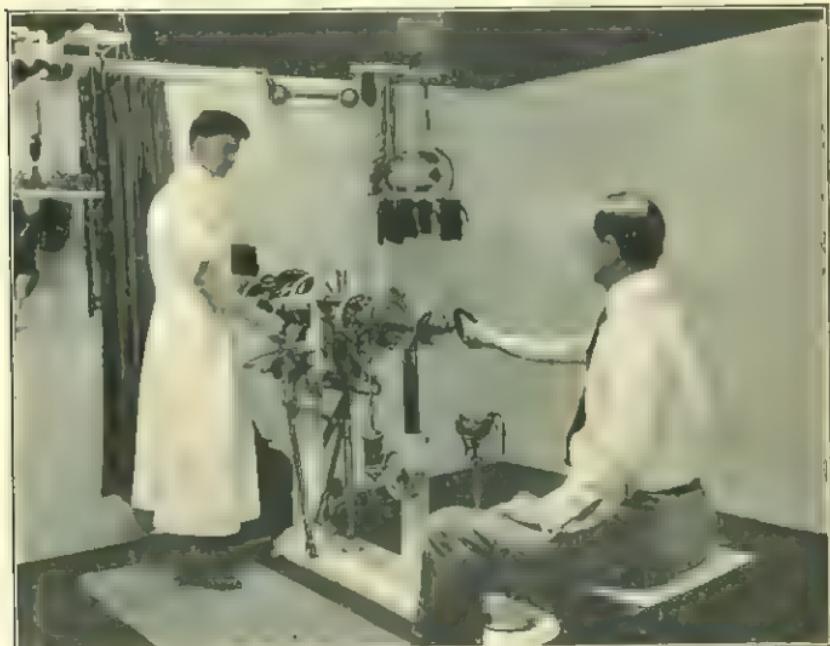
The arthromotor adjusted for treating the wrist joint.



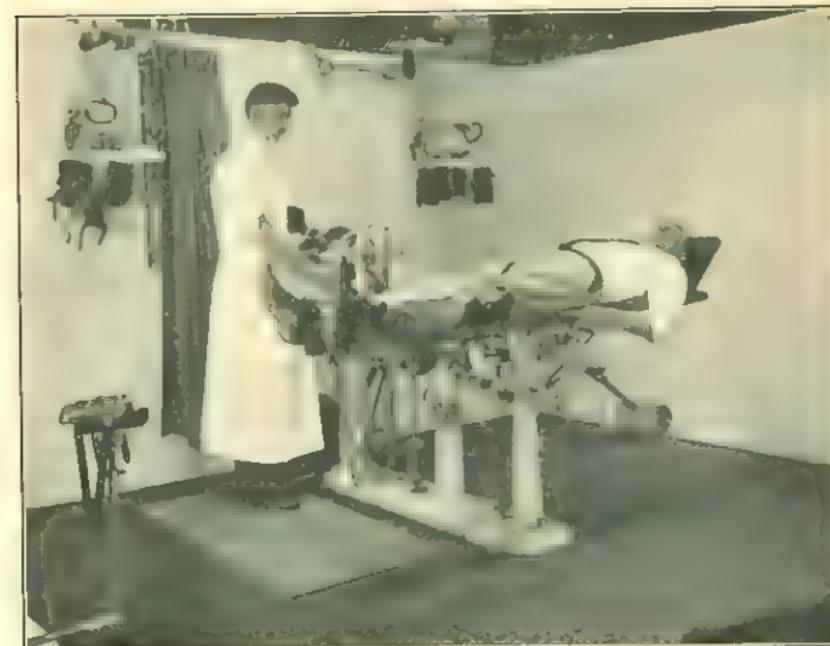
Attachment for flexing and extending stiff fingers and adding mobility to wrist.



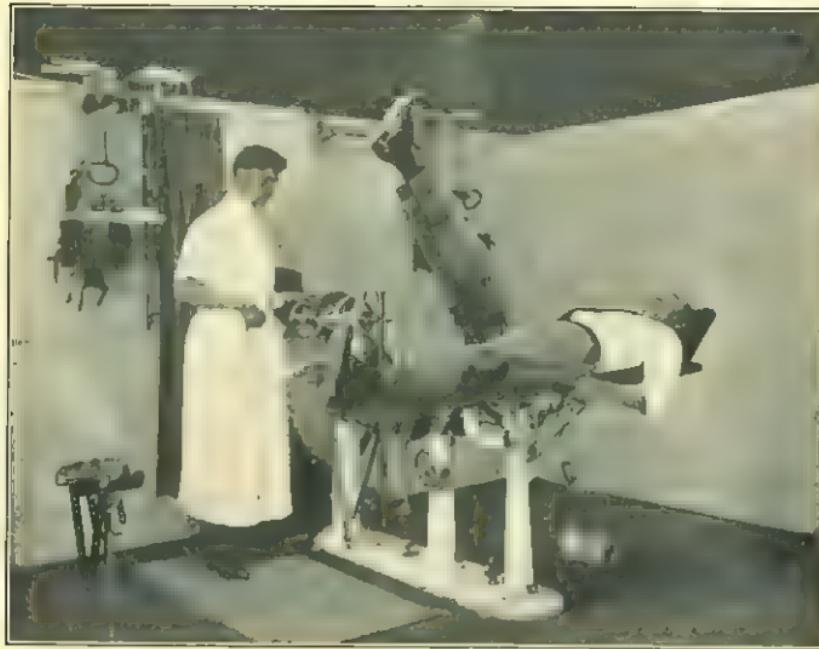
The same work carried farther is shown in this cut.



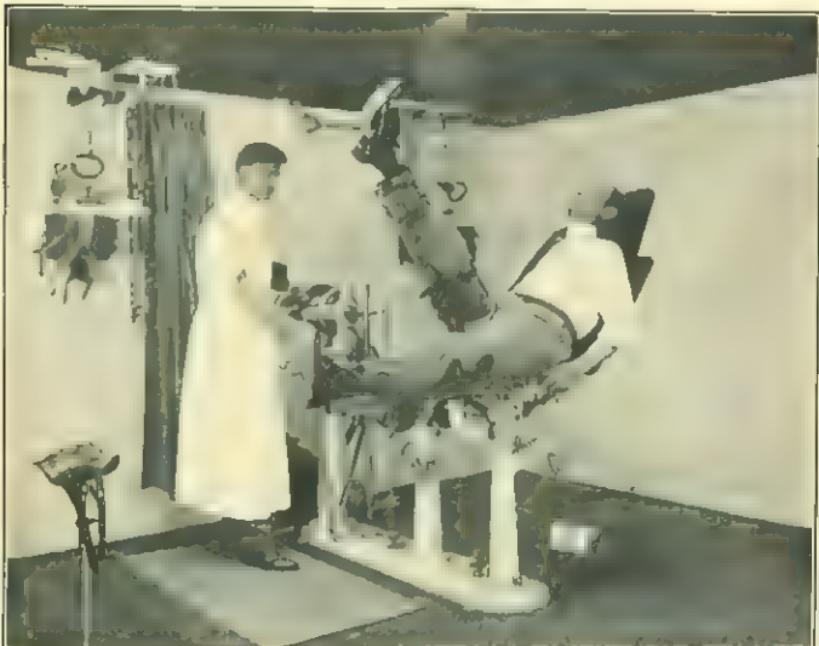
Attachment for affecting both forearm and shoulder joint conditions.



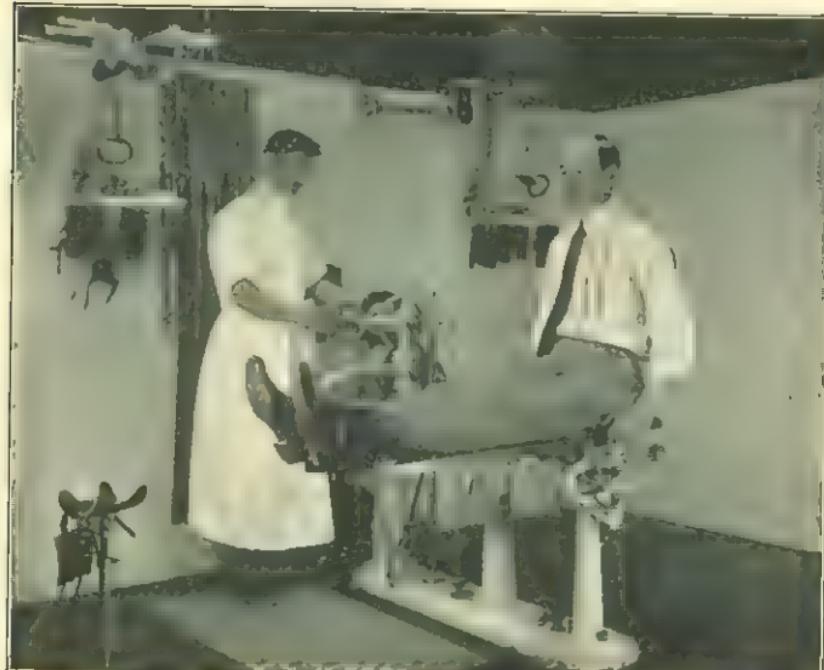
Various attachments and positions in the passive exercise of stiff hip joints. Old adhesions surrounding the hip joint in many instances have to be attacked from every direction. In position to begin easy work.



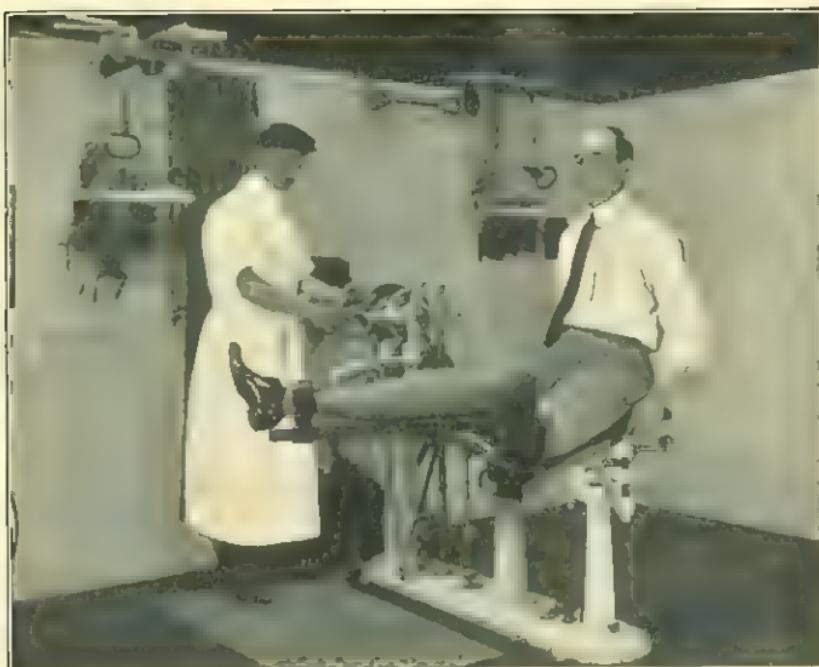
Flexion of hip joint, body in horizontal position.



Stronger flexion of hip joint because body is at an angle with the floor.



In sitting position to begin lateral movement of hip joint.



Lateral movement of hip joint shown to be free and normal.

Mechanotherapy or Mechanical Exercise

Zander, who has doubtless given as much serious thought as any one to mechanotherapy and its effects, says:

"One of the most important manipulations of the masseur is Vibration; but the hand cannot compete with the machine.

"The Vibrating mechanism, brought into contact with the soft tissues of the body, exercises on these an effect of rapidly alternating expansion and pressure, which accelerates the circulation in the capillaries and lymph vessels, increase absorption and causes morbid infiltration of the tissues to disappear."

Certain forms of passive exercise may be administered by machinery far more effectively than by the hand. This is particularly true of vibratory oscillatory exercise. The rapid, steady, and prolonged movements which can be administered by machinery can not be even approximated in efficacy by the human hand. Certain kneading and percussion movements may be administered more effectively by mechanical means than by the manual method.

For a number of years, these methods have been employed in connection with our other work at the Sprague Institute. Various series of graduated movements are prepared for different maladies and conditions, as obesity, constipation, neurasthenia, cardiac cases, etc.

The great number of absurd claims for Vibrotherapy should not allow any question of its true value to arise in the mind. Experience has demonstrated its use in the accomplishment of certain results.

The vigorous movements and steady rhythm of mechanical massage, and its never-tiring thoroughness, are qualities which secure splendid results, not to be obtained by manual means.

The various forms of Kneaders employed, adapt this method not only to the abdomen, but to all the fleshy parts of the body and with the oscillatory form of movement to the whole body.



Belt of oscillator adjusted to stimulate the shoulders and upper vertebra.



A special apparatus for giving a combination of vibration and passive movements adjusted for treating the ankle and leg.



In this cut the belt is adjusted for stimulating blood flow and nerve action to the sacral region and the hips.



Apparatus for automatic exercise. Induces a strong flow of blood to the legs and feet, also a fine stimulation to the whole viscera, like the trotting of a horse.

If electricity is indicated and the physician desires its use, static, high frequency and violet rays are at hand.



In conditions attended by no pain and low nerve tone high-tension electricity affords prompt and gratifying results.



High tension electricity is easily administered and the effects are often very marked.

It is hoped that the illustrations shown in this booklet, will be taken merely as representative of the many appliances that we have, and of the great variety of uses to which they may be put.

When it is remembered that such a large amount of Curative work consists in merely removing the obstructions which the system has encountered in the performance of its various functions—obstructions which, when removed, permits the vital processes of the body to go on unimpaired, it will not be difficult to see that a thorough equipment is essential to do thorough work, and meet the needs of a constantly increasing demand. The Swedish table you will see by many of the following cuts offers especial advantages in an immense amount of important remedial work.



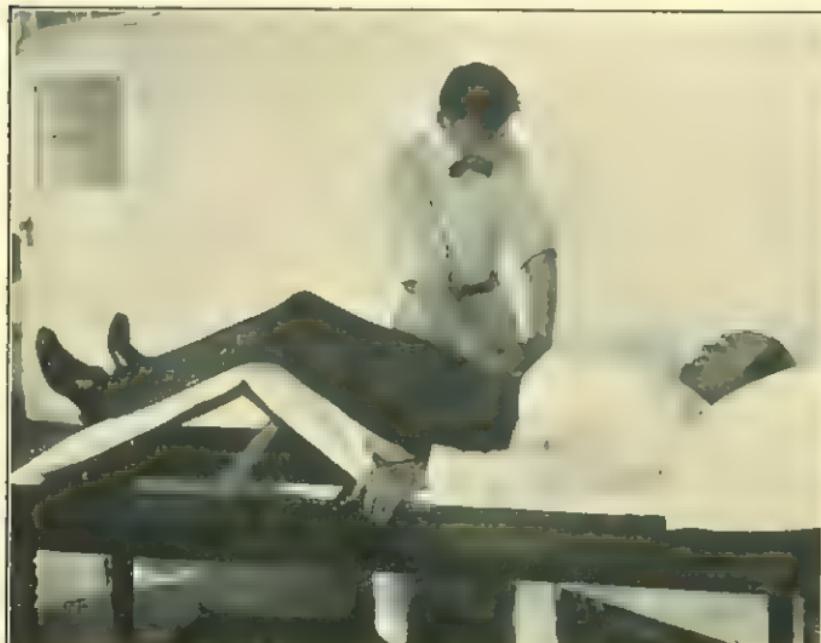
A special apparatus for stretching the spinal column. Clinical experience has conclusively shown the value of this treatment in certain diseases not only of the spinal column but of the cord itself.



In the upper figure the tension of the upper extremities is sustained by both head and shoulder. In this, gentle stretching for head alone, great relief is often felt at once.



This apparatus admits of nice adjustment to meet the changing needs of each case.



According to "Ling," a movement is any form of exercise with a fixed duration, direction and purpose.



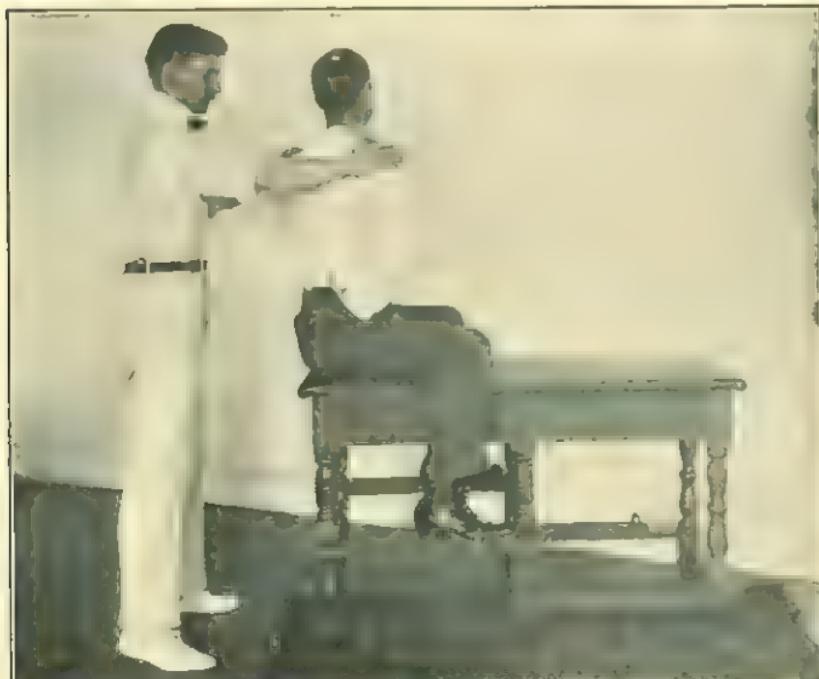
In chest raising we can exert a very powerful force in the intercostal region clear back to the head of the ribs.



Great care is needed to determine the right degree of force or pressure to employ.



With this exercise we not only influence the knee and hip joint and attachments, but reach the whole bowel in a very effective way.



The application of passive motion and resistance exercises often accomplish results that can be obtained in no other way.



Passive motion and counter pressure for correcting abnormal conditions of the spinal muscles and ligaments in the lumbar region.



Movements to counteract intra-abdominal congestion, sluggishness and torpidity (constipation, biliousness, etc.)



Additional movements for the back and abdominal muscles.



Tension and counter pressure properly applied are exceedingly helpful in breaking down old adhesions and increasing the mobility of stiff shoulder joints.



A variation of the foregoing.



A movement especially adapted for stretching muscles and breaking up adhesions in the chest and intercostal muscles.



Another movement to accomplish same object as previous figure.



A combination of tension and counter pressure for correcting abnormalities of the spinal muscles, ligaments, and cartilages.



The improvement that follows expert treatment of these cases of stiffened spine with muscles and ligaments bound down and contracted is often remarkable. Proper tension and skillful manipulation soon overcome the conditions present, and as the local circulation improves the patient shows a substantial gain in his whole condition.



Relaxation of the ligaments and muscles of the neck must be secured. Neither can the blood flow freely nor the nerves act normally without it.



Additional movements for the neck.



Another method of treating wry neck or conditions of the cervical portion of the spine.



The manipulation of a special area often brings remarkable results. The expert operator knows not only the nerve and trophic centers, but how to manipulate these to produce the effects desired.



When tight, cordy connective tissue is relieved, when circulation is made perfectly free, congested head and flushed face with headache has less reason to exist.



A stiff or wry neck treatment.

To Recapitulate—Principles and Processes

"The blood must continue to circulate. There must never be a stasis of blood."

"A pleasant treatment which causes a sense of exhilaration when well administered."

"Increased supply of arterial blood to any part of the body favors absorption of chronic exudates, infiltrations, adhesion—these chronic conditions are particularly favorably influenced by hot-air hyperemia."

A "hyperemic" treatment applicable to any and every part of the body.

Rationale of Action.—The "way" heated dry-air (250 to 400 degrees Fahr.) acts principally through "reflex stimulation of deep nerve centers"; stimulation (hyperemia) of capillary areas and corresponding depletion of veins, stasis, stimulation of oxidation; stimulation of metabolism.

Clinical Value of the Sprague Method.—Physicians of Clinical experience know that the "skin" is one of the great sewers of the human body—and a vast capillary expanse into which to deplete congested organs and tissues.

One of the important functions of the skin is to act as a medium of elimination—elimination of the body waste. An important role of the skin is to take on **Extra function**, compensatory, excretory functions in disorders or diseases of other emunctory organs—the kidneys, bowels and liver.

Health—and often life—depends upon our ability as clinicians to make the skin take on extra or excess function—eliminative, circulatory activity.

The “best” of all means to stimulate this emunctory, the skin, to extra (excess) compensatory functioning is dry-hot air (250 to 400 degrees Fahr.), as is only possible with the equipment and facilities as offered to the medical profession at the Sprague Institute.

Increased elimination of Waste Poisons by the Skin is only one of the beneficent effects of the **Sprague Method of applying Dry Hot Air** (250 to 400 degrees Fahr., as administered at the Sprague Institute). In acute, sub-acute and chronic Rheumatism, Gout, Uric Acid, Neuritis, Neuralgia, Lumbago; in Arthritis Deformans, Fibrous Lesions, Ankylosis,—in local perverted nutrition the Sprague Thermo-Therapy is efficient when all other efforts have failed.

In Malarial Toxemia with enlargement of Spleen and Liver—with portal stasis—the Sprague Method, as employed at the Sprague Institute, is imperatively needed.



The Spirometer is serviceable not alone for measuring lung capacity but also for developing the chest muscles and increasing lung efficiency.

The Sprague Institute meets a great and necessary co-operative role with the physician and surgeon in their fight with intractable morbid conditions.

The Sprague Institute is simply a unique and efficient therapeutic agent available to all physicians who want to retain their patients, but desire to place them in the hands of a specialist in Thermo-Therapy-Dry-Hot-Air (250 to 400 degrees Fahr.). It is the only non-hospital place in New York City where absolutely dry-hot air (250 to 400 degrees Fahr.) can be applied; and, as absolutely **Dry-Hot Air** is necessary for the successful treatment of certain general and local nutritional and functional disorders, the physician and surgeon will appreciate the facilities offered at this Institution. No drugs are administered at the Institute. When medication is necessary that is a matter with the patient's physician.

Effects of Dry-Hot Air Treatment "A more rapid and complete oxidation of effete materials which are clogging metabolic processes—into normal excretory products—urea for the kidneys, CO_2 for the lungs, etc., which are then easily disposed of by appropriate organs."

"Patients continue to improve in health and strength—after a course of **Dry-Hot Air**."

"To obtain the most profound and permanent curative influences of **Dry-Hot Air** we must not only induce elimination, but supplement and perpetuate as far as possible the advantages dependent thereon, by augmenting the trophic reconstructive functions whereby we increase the patient's **Constitutional Resistance**; and effective stimulation of these processes is **Not Possible** unless the **Higher Temperatures** are used."



Patient in chair ready for treatment. Position one of perfect relaxation and comfort.

A New Application of ERGOTHERAPY

by the BERGONIE METHOD

in the Treatment of

OBESITY and Other Chronic Disorders

Under the name of the Bergonie Treatment this method has, within the last few years, become deservedly popular in all parts of Europe in the treatment of OBESITY, and has recently awakened a great deal of interest in this Country.

The Bergonie Machine has the remarkable attribute of evoking painless muscular contraction and without the expenditure of any energy—Muscular or Nerve—on the part of the patient.

So its employment as a means of developing weak Abdominal Muscles, the groups of muscles in Scoliosis, paralyzed muscles in cases of Hemiplegia and Infantile Paralysis, was most natural.

The results have been very gratifying and lead to a more extended application of this powerful passive exercise.

Obesity, both local and general, is a disorder of Metabolism. The body fails to burn its fat thus permitting it to accumulate, just as in Diabetes the body fails to burn its sugar and allows it to be lost through the kidneys.

In Obesity, the case is not as difficult as in Diabetes, as it is only necessary to increase metabolism by increasing the activity of the Muscles.

During vigorous activity the rate of metabolism may be increased 10 or 20 times the rate in the state of rest.

The difficulty is to induce the patient to take the needed amount of exercise. A fat person becomes easily fatigued, the heart is often weak, the breath short and not infrequently obese patients suffer from rheumatism in the knees or feet which renders much walking painful or impossible.

Automatic exercise, electrically induced by the Bergonie Method, overcomes all these objections and places at your disposal a very potent force, for these most difficult and baffling conditions.

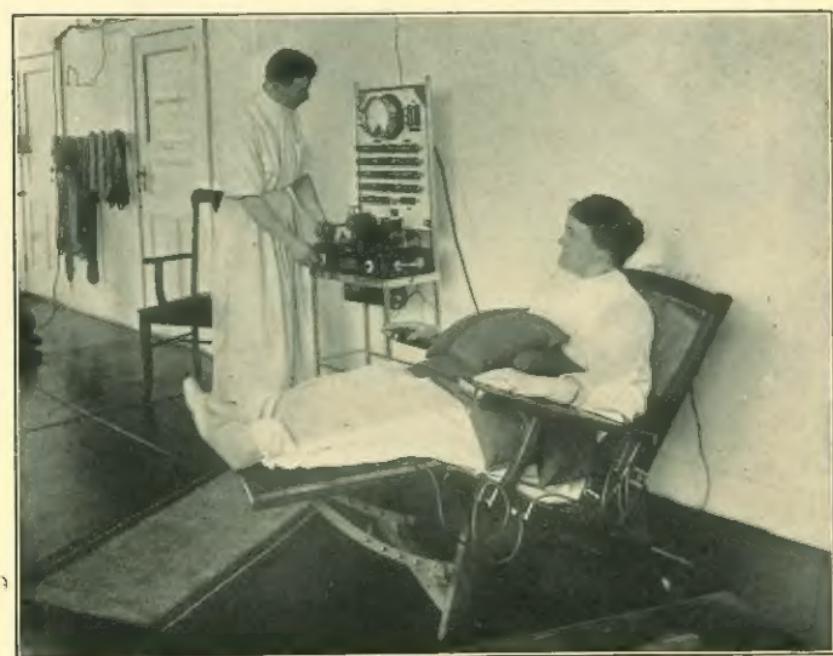
Further information on request.



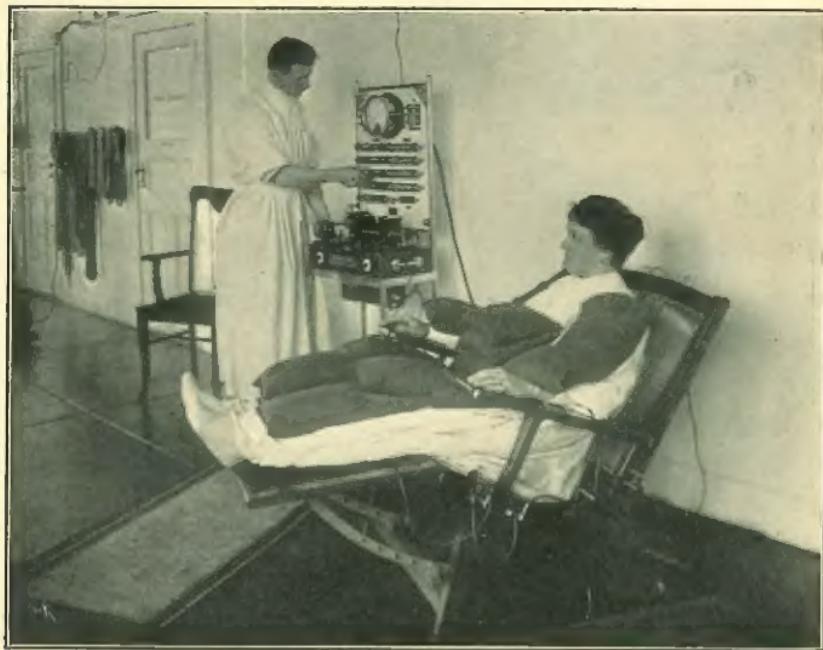
Abdominal muscles given more work to do by placing sand-bags over that region. There is not the slightest effort put forth by the patient.



This shows all the great groups of muscles with heavier work to do by placing sand-bags over all of them. They may work separately or together.



Same as foregoing, showing lady patient in treatment with abdominal weights.



Lady patient with general application of weights.

OBESITY

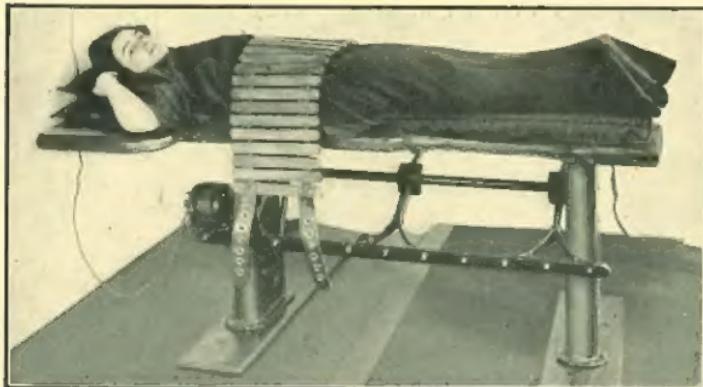
AND ITS SUCCESSFUL TREATMENT

by the

NILES NORMALIZING MACHINE

without the

**Strenuous Exercising, Starvation
Dieting, or Drastic Drugging of the Past**



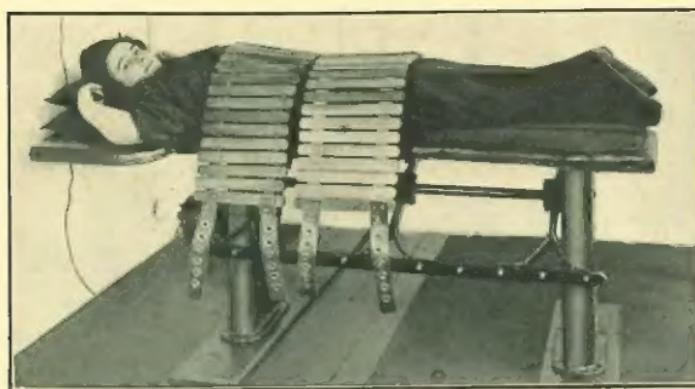
Normalizer with belt adjusted to Abdomen.

SOME FAT ESSENTIAL

While we may properly regard a moderate amount of fat as a store house of food and energy—a fuel reserve for times of stress—yet there is a point beyond which fat is certainly “excess baggage” and a predisposing condition to many ills.

EVERY PHYSICIAN KNOWS

that in obesity, the heart and lungs must work harder, fatty degeneration of important internal organs is not unusual. Fat folk are especially liable to hardening of the Arteries, Dropsy, Skin Eruptions, Diabetes, Asthma, Apoplexy, Gall Stones and Gout. They stand operations poorly and lack resistance to acute infection. They are very prone to Anemia and conditions resulting from lack of red cells in the blood.



Two belts adjusted, one to the waist, the other to hips and thighs.

THE OLD METHOD A HARD METHOD

One of hard work and self-denial. Rolling on the floor, crawling, stretching, stooping, twisting and turning, galloping on all fours, "picking pins," high kicking and severe dieting. But the number of fat folk who got results by all or any of these ways was too small to be considered.

A NEW AND EASIER METHOD

So it became necessary to find an effective method that would really reduce fat in a feasible and consistent way by establishing a Normal Condition of Circulation, that better oxidation of the blood and more perfect elimination of body waste could take place. Hence, we have great satisfaction in offering a system of fat reduction that does not require one to **punish oneself dietetically or to risk the use of dangerous remedies**, to acquire a less bulky and a more supple form. We present the

NILES NORMALIZING MACHINE

the newest and, at the same time, most practical reduction instrument which has been devised. It accomplishes its reduction work without laying any burden upon the heart or circulatory apparatus. Its

effects are secured with the greatest degree of comfort allowing the patient the **maximum freedom** from hard and fast rules that have always been thought necessary to accomplish even indifferent results. So with this instrument at hand the successful way is made comparatively easy.



Single broad belt adjusted to hips and back.

No one should try to deceive himself into thinking he can afford to ignore a few pounds of extra weight that is steadily increasing. Neither should one allow an excess of fat to become permanent. By taking the **Niles Normalizing Treatment** both size and weight can be reduced, appearance improved and a feeling of well being established, not known since **excess fat became a constant companion**. The Life Insurance Companies will tell you that life expectancy has increased greatly.

Our facilities for giving the Niles Normalizing Treatment as well as our other treatments are complete—your inspection is invited.



SPRAGUE INSTITUTE

141-43-45 WEST 36th STREET

NEW YORK

Phone 1135 Greeley

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